

WHAT IS CLAIMED IS:

1. A complex of clay and polyoxyalkylene amine, wherein said clay is layered and includes silicate, and said polyoxyalkylene amine provided as an intercalating agent has molecular weight over 1,800.
- 5 2. The complex of claim 1, which has interlayer distances between 50-92Å.
3. The complex of claim 1, wherein said polyoxyalkylene amine is polyoxyalkylene diamine.
4. The complex of claim 1, wherein said polyoxyalkylene amine is 10 polyoxypropylene diamine.
5. The complex of claim 1, wherein said clay is selected from a group consisting of montmorillonite, kaolin, mica and talc.
6. The complex of claim 1, wherein said clay has a cation exchange capacity between 50-200 meq/100g.
- 15 7. A method for producing a complex of clay and polyoxyalkylene amine, wherein said clay is layered and includes silicate; said method is primarily to acidify said polyoxyalkylene amine with an inorganic acid, which is then mixed with said clay swelled with water previously; the mixture is then powerfully stirred at 60-80°C for cation exchanging to 20 obtain said complex.
8. The method of claim 7, wherein said clay is selected from a group consisting of montmorillonite, kaolin, mica and talc.
9. The method of claim 7, wherein said clay has a cation exchange capacity between 50-200meq/100g.
- 25 10. The method of claim 7, wherein said polyoxyalkylene amine is

2025 RELEASE UNDER E.O. 14176

polyoxyalkylene diamine.

11. The method of claim 7, wherein said polyoxyalkylene amine is polyoxypropylene diamine.

12. The method of claim 7, wherein said polyoxyalkylene amine is
5 added at least equal to cation exchange equivalence of said clay.

13. The method of claim 7, wherein said inorganic acid is selected from a group consisting of hydrochloric acid, sulfuric acid, phosphoric acid and nitric acid.

14. The method of claim 7, wherein said complex is applied as an
10 oily surfactant.

15. The method of claim 7, wherein said complex is applied as an reinforcing agent of polymers.